Remarks/Arguments

In response to an Amendment and Response filed by the Applicant on October 3, 2006, the Examiner has issued a Final Rejection. Therefore, the Applicant herewith submits a request for an RCE. The Applicant has amended independent claims 1, 11, 18 and 19 to clarify the invention. Support for the amendments can be found at page 3, lines 9-11; see also, page 5, lines 22-24. Claim 9 has been cancelled. No new matter has been added.

Claim Rejections - 35 U.S.C. §103

The Examiner has rejected claims 1-8, 10-15 and 17-19 under 35 U.S.C. 103(a) as being unpatentable over JP 08319527. Applicant respectfully requests reconsideration for the following reasons.

Applicant has amended independent claims 1, 18 and 19 to incorporate the limitations of cancelled claim 9. Specifically, the claims require that the solution annealing step produce a grain size of up to 0.015 mm and an electrical conductivity up to 26% IACS. Applicant believes that these amendments obviate the rejection because the limitation of producing a product with a grain size of up to 0.015 mm and an electrical conductivity of up to 26% IACS is not taught, nor suggested by the JP 08319527 reference.

Applicant respectfully argues that a prima facie case for obviousness has not been made for claims 11-15 and 17. Applicant believes this to be the case because independent claim 11, as originally filed, required the limitation that the solution annealing step produce a grain size of up to 0.015 mm and an

electrical conductivity up to 26% IACS. JP 08319527 does not teach or suggest the grain size required by claim 11 and dependent claims 12-15. Therefore, Applicant believes that a prima facie case for obviousness has not been made for claims 11-15 and 17.

For these reasons, Applicant respectfully requests reconsideration and withdrawal of the Examiner's rejection of claims 1-8, 10-15 and 17-19 as being unpatentable over JP 08319527.

The Examiner has rejected claim 9 as being unpatentable over JP 08319527 as applied to the above claims and further in view of JP 61250154 or JP 03162553. Applicant respectfully requests reconsideration and withdrawal of the Examiner's rejection of claim 9.

Applicant agrees that the JP 08319527 reference does not teach the grain size, nor the electrical conductivity, required by claim 9. Therefore, the Examiner has combined the primary reference with two JP references. With respect to the JP 61250154 reference, Applicant respectfully argues that the Office Action has not provided an articulated reason supporting an obviousness conclusion for using the large grain size of the JP 61250154 reference in the process of JP 08319527. The grain size taught by the JP 08319527 is so much smaller (in the nanometer range) than the grain size taught by the JP 62150154 reference, which is in the micron range. There is nothing in either reference that suggests that using a much larger grain size (three orders of magnitude larger) in the JP 08319527 process would work. Therefore, it would not have been obvious to use the larger grain size in the absence of Applicant's teaching.

The Examiner maintains that the cooling rate is not critical and is well known in the prior art. However, Applicant

respectfully argues that, through the combination of process steps, grain size and the cooling rate, the present invention has unexpected results. The copper alloy product produced by the process of the present invention has both high yield strength and high electrical conductivity.

Applicant has amended the independent claims 1, 11, 18 and 19 to require that the copper alloy produced has a yield strength of at least 90 ksi and an electrical conductivity of at least 50% IACS. The objective of Applicant's invention is the combination of high yield strength and high electrical conductivity.

For these reasons, Applicant respectfully requests reconsideration and withdrawal of the Examiner's rejection. Further, Applicant does not believe that a rejection of the amended independent claims over JP 08319527 in view of JP 61250154 should be imposed.

With respect to the JP 03162553 reference, Applicant believes that all of the arguments pertaining to JP 6125054, see above, apply. Furthermore, Applicant respectfully points out that the claimed alloy has a grain size of up to 0.015 mm, which is 15 μm. However, the JP 03162553 reference teaches alloys with grain sizes of 1-10 μm. Neither JP 08319527, nor JP 03162553, individually or in combination, teach the entire range of grain sizes as required by claim 9.

Accordingly, the Examiner is respectfully requested to withdraw this rejection. Further, independent claims 1, 11, 18 and 19, as amended, all contain the limitations of cancelled claim 9. Therefore, Applicant does not believe that a rejection of the claims over JP 08319527 in view of JP 03162553 should be imposed.

Conclusion

Based on the above arguments and amendments, the Applicant respectfully submits that independent claims 1, 11, 18 and 19 are allowable, and therefore, dependent claims 2-8, 10, 12-15 and 17 are also allowable. Therefore, the Applicant respectfully requests that the Examiner allow these claims.

This response is being filed with an extension of time fee and a fee for RCE. If any other fee is due, the Examiner is authorized to charge the fee to Deposit Account No. 08-2442.

Respectfully submitted,
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Dated: May 8, 2007